REPORT / RECOMMENDATION

To: Park Board

Agenda Item #: VII.B.

From: Ann Kattreh
Parks and Recreation Director

Action ☐
Discussion ☒
Information ☒

Date: September 10, 2013

Subject: Centennial Lakes Promenade Final Phase

Action Requested:
Provide review and comment about the Centennial Lakes Promenade Final Phase.

Information / Background:
Attached are the updated concept water feature and an example summary for the final phase of the Promenade project, which includes the water feature and a small brook. This information was included in the August Park Board packet for review. Also included are potential underground infiltration options that the City is considering in partnership with the Nine Mile Creek Watershed District.

Approval process includes:

- August 8 – EEC receives Plan and Examples
- August 13 – Park Board receives Plan and Examples
- August 15 – ETC receives Plan and Examples to comment on pedestrian and bike facility
- September 10 - Park Board to provide review and comment on plan: URS presents plan to Park Board
- October/November 2013 – Final Park Board approval of plan
- November/December 2013 – City Council reviews and approves Plan and Examples

If all progresses as planned, the proposal will go to the City Council for approval before the end of the year. URS will then be able to complete the final design by February and bid out the project in March for start of construction in June / July of 2014 with construction completion in October / November of 2014. Wayne Houle, Director of Engineering and URS representatives will be in attendance to present the plan.

ATTACHMENTS:

A. Concept Water Features
B. Subsurface Infiltration Options
C. Visible Infiltration Options

BROOK CONCEPT

THE BROOK CHANNEL IS ENVISIONED TO BE FAIRLY NARROW: 2' AT THE BOTTOM WITH EDGES BEING 1-3' DEPENDING ON THE CONDITIONS. THE UPPER CHANNEL WILL BE MORE FORMAL WITH STONE OR FORMED CONCRETE EDGES (EXAMPLE PHOTO 1). THE CHANNEL BELOW THE POND WILL BE LESS FORMAL, WITH SCATTERED BOULDERS MEANDERING ALONG THE CHANNEL (EXAMPLE PHOTO 2). THE WATERWAY WILL BE LINED IN SOME WAY, MOST LIKELY WITH PLAIN OR COLORED CONCRETE.

EXAMPLE PHOTO 1: FORMAL HARD EDGE w/SMOOTH CHANNEL BOTTOM

EXAMPLE PHOTO 2: GRAVEL CHANNEL WITH ROCKS AS GRADE DROPS FORMING SMALL POOLS, INFORMAL ROCK EDGE

SCULPTURAL NODE CONCEPT

THERE WILL BE THREE OR FOUR LOCATIONS FOR SCULPTURAL INSTALLATIONS. THE BEGINNING AND END OF THE "BABBLING BROOK" CHANNEL ARE IMPORTANT NODES IN THIS PORTION OF THE PROMENADE. THESE NODES WILL BE PERMANENTLY INTEGRATED INTO THE WATER FEATURES AND BE PART OF THE WATER CIRCULATION SYSTEM. OTHER LOCATIONS MAY BE USED FOR TEMPORARY INSTALLATIONS.

SIMPLE ELEGANT SCULPTURE IN SMALL FORMAL POOL

CASCADING WATER CONCEPT

THE TOTAL GRADE CHANGE FROM THE TOP OF THE WATERWAY TO THE LOWER OUTLET AREA IS ABOUT 10'. MOST OF THE CHANNEL WILL BE FAIRLY FLAT. TRANSITION AREAS FLOWING TO AND FROM THE POND WILL BE MAXIMIZED TO PROVIDE SOME INTERESTING CASCADING FEATURES.

SMALL DROPS SPACED ALONG LENGTH OF BROOK

POND CONCEPT

THE POND WILL BE LINED WITH COLORED CONCRETE TO FACILITATE PERIODIC MAINTENANCE / FLUSHING. THE WEST EDGE WILL BE A SHORT WALL, 2.5' MAXIMUM AND WILL NOT REQUIRE A RAILING. THE EAST EDGE WILL BE LINED WITH LARGE BOULDERS TO DISCOURAGE PEOPLE FROM GOING INTO THE WATER. THE WATER WILL BE CIRCULATING AT ALL TIMES AND WILL BE PUMPED FROM THE NORTH POND OF CENTENNIAL LAKES. IT'S FUNCTION WILL BE TO PROVIDE A PASSIVE RECREATIONAL ENVIRONMENT FOR TRAIL USERS WHILE INCREASING THE RUN-OFF TREATMENT CAPACITY FOR CENTENNIAL LAKES STORM WATER SYSTEM AND PROPOSED BYERLY'S SITE DEVELOPMENT.

MIX CONCRETE WALK/EDGE WITH RIP-RAP EDGE

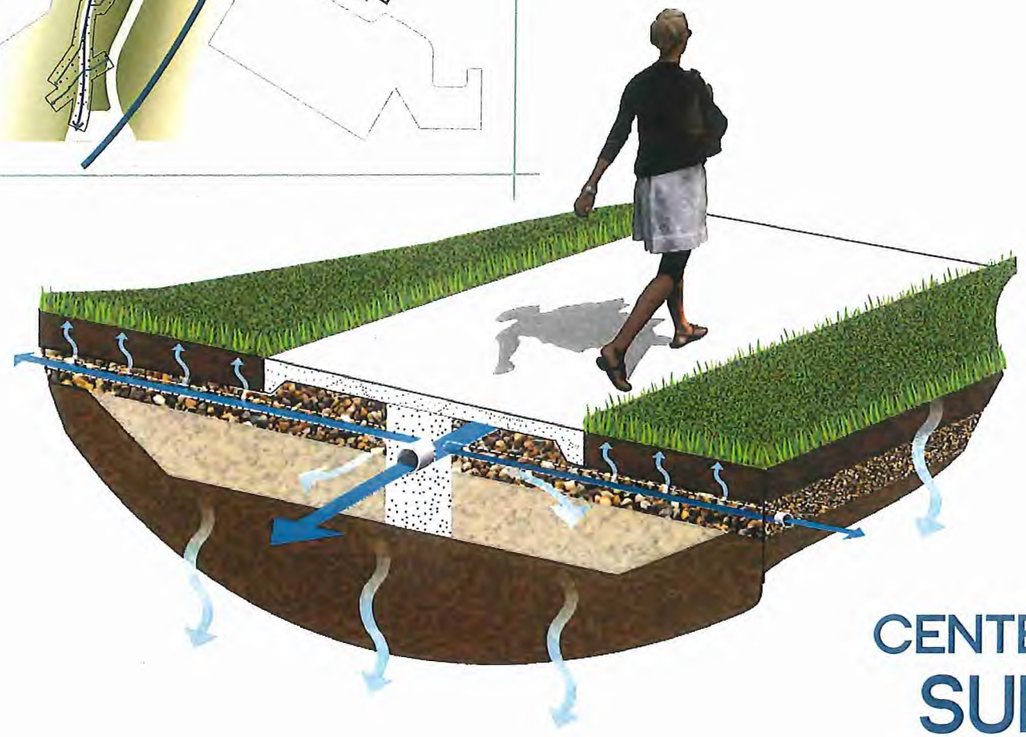
BROOK CROSSING FEATURE CONCEPTS

TRAIL CROSSINGS WILL BE SIMPLE STRUCTURES WHICH WILL PERMIT WATER TO FLOW UNDERNEATH WITHOUT BEING HIGH ENOUGH TO REQUIRE RAILINGS. IN SOME OR ALL CASES A "BUMPER" MAY BE ADDED AS AN ADDED SAFETY MEASURE FOR WHEELCHAIRS, STROLLERS, ETC.

PLAN
Option A

SHALLOW UNDERGROUND IRRIGATION/ INFILTRATION

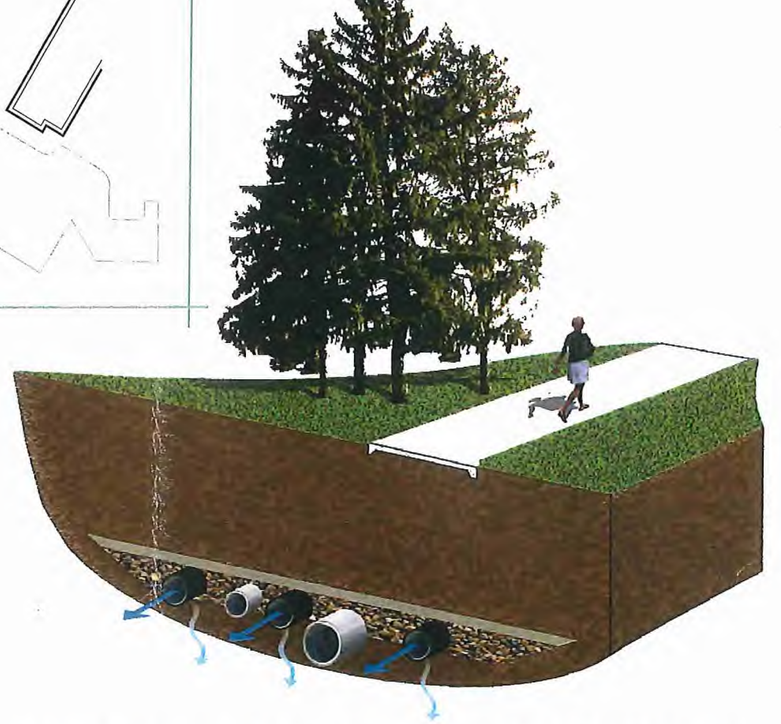
Water pumped up from the lake travels through draintile beneath the proposed pathway. It flows from the main drain-tile into smaller draintile pipes that distribute the water throughout a shallow rock trench so that it can be wicked up through roots and used to irrigate lawns and plantings. Water not taken up by the plants infiltrates into the ground.



PLAN
Option B

DEEP UNDERGROUND INFILTRATION

Water pumped up from the lake flows into an underground infiltration bed and spreads out via rows of perforated pipes. The infiltration bed lays 6-9' below the proposed pathway and water feature, and occupies over a half acre footprint.



CENTENNIAL LAKES / PROMENADE VOLUME REDUCTION

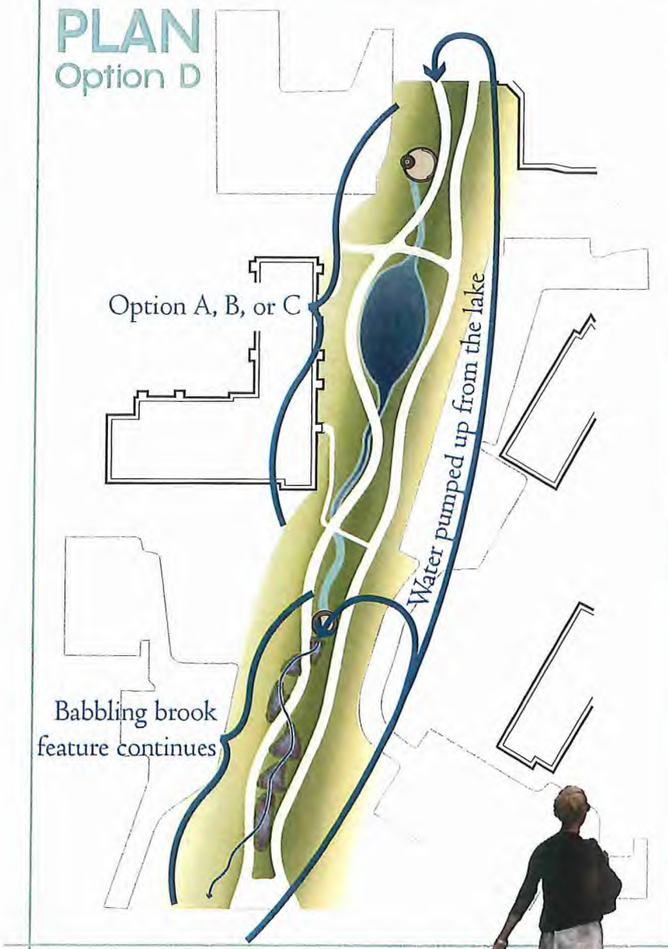
SUBSURFACE INFILTRATION OPTIONS

PLAN
Option C

SHALLOW GARDEN BASINS

Water pumped up from the lake irrigates a series of about 20 shallow (< 6" deep) garden infiltration basins. Basins will be planted to enhance the landscape and maintain consistency with the planting themes of the Promenade and Centennial Lakes Park. To reduce cost, it may be possible to have turf grass in some portion of the basins.

PLAN
Option D



SHALLOW GARDENS WITH ROCK CHANNEL

Water pumped up from the lake flows into a series of shallow gardens via a rock channel that resembles a stone creekbed. Water is taken up by the plants and infiltrates into the ground.

This option is intended to be combined with option A, B, or C along the northern two-thirds of the Promenade.

CENTENNIAL LAKES / PROMENADE VOLUME REDUCTION
VISIBLE INFILTRATION OPTIONS